Impact Report

jKool launches SaaS-based time series analytics, seeks funding

Analyst: Jason Stamper 11 Dec, 2014

By offering its time series analytics as a service, jKool is hoping to combine ease of use with a flexible deployment model and pricing. The firm has only just spun out from performance management company Nastel, and it says it is actively seeking investment funding.

The 451 Take

For companies looking for near real-time analytics of stream data, jKool offers a relatively inexpensive approach that can grow in line with the amount of data the companies are trying to analyze. The firm has spent a lot of time creating a system that is easy enough for non-technical users to get to grips with (after some initial setup by a developer or two) and the as-a-service model has its fans. However, it must be noted that jKool is at the earliest possible stage, having only just been spun out of Nastel, with little in the way of corporate infrastructure and no reference customers.

Context

JKool is a Long Island, New York-based firm that has just spun out of middleware-centric performance management company Nastel. It hasn't raised any funding yet but told us it is now actively seeking its first funding round.

The company did not reveal staff numbers, which is probably because it has only just emerged from under Nastel's coattails. However, we do know that the CTO is Albert Mavashev, who was a developer before becoming VP of development and CTO at Nastel. Also on board is Charley Rich, VP product management, who has had a variety of roles at Tivoli, EMC, IBM and most recently, Nastel.

JKool doesn't have any reference customers yet either, but it says use cases are likely to include financial services, healthcare and pharmaceuticals, or online businesses. For example, insight into immense sets of time-series data could allow businesses to match ads with the most effective placements, analyze user data per medical procedure, offer more effective loyalty rewards, identify behavior patterns to adjust to changes, or analyze risk.

Technology

JKool offers time series analytics as a service that users interact with at jKoolcloud.com, although it says it could be deployed on-premises if a company were concerned about putting data in the cloud. It's aiming the service at companies that are looking to extract insight from their data, with a particular focus on data that forms a stream, with some element of time.

Examples of time series data: changes in the price of an item at different times, patient vital signs over a particular time period, or it could be data around insurance records or ad placements. Quite rightly, the company points out that this sort of data has less value the longer the delay in it being available for analysis, and that more and more companies are attempting to analyze such streaming data close to real time.

Data is streamed into jKool's server pool in the cloud, via jKool's own API, called TNT4J – which the firm has open sourced – but it also supports the Apache Log4j Java logging framework. The offering is said to be language independent thanks to the use of JavaScript Object Notation (JSON) over HTTP. Somewhere 'under the covers,' the system also uses the open source distributed database Cassandra but all of Cassandra's configuration, tuning and the like is hidden from the user.

At the front end, users of the jKool service see a query-driven dashboard. Unlike most tools, users don't query the data using SQL – the company says it wanted an even simpler language so it created its own, jKQL, which it describes as 'English-like.' There are a number of built-in features that enable users to search, filter, group and count data. Results can be ranked by time, location or other criteria. The goal was for business users, rather than just data scientists, to be able to query their data.

Today, there's no alerting functionality built in, but that's on jKool's roadmap. However, users can choose to set a data refresh interval, so their charts and graphs are updated every minute, for example, or every 30 minutes. The company is aiming the analytics at streaming data, but concedes that its analytics are near-real-time rather than real-time, not least because there is the inherent latency of the Internet to deal with.

The company hasn't done so yet, but it plans to make the jKQL query language open source also (as mentioned, it's done that already for the TNT4J API). Note that today, getting data into jKool will typically require a developer at the outset to get the TNT4J API embedded in the various systems or applications producing the data streams. Going forward, the company plans to make additional connectors available that could make this process simpler.

At the user interface, jKQL makes it relatively easy to ask the most common questions about data, supporting aggregates such as count, min, max and average and the ability to compare and highlight differences between activities. JKool's visualizations, such as tables; pie, line, bar and column charts; scorecards; topology; geo maps, candlesticks and Bollinger Bands, present the data in an easy-to-understand manner.

Pricing is based on the number of data points being tracked by a company and is also affected by how long the data is retained by jKool. For instance, a million data points a month can be kept for 14 days in jKool for free; five million datapoints per month can be retained for 30 days for $199 a month; 50 million could be retained for 60 days for $599 a month.

Competition

An obvious, far larger competitor is Amazon Web Services, with its Kinesis stream processing service. As well as its brand and scale, it has the advantage of being able to export data into Amazon Simple Storage Service (Amazon S3), Amazon Redshift, Amazon Elastic MapReduce (Amazon EMR) and AWS Lambda.

Depending on what customers are trying to do, they might instead turn to Lokad, which offers cloud analytics services on top of Microsoft Azure. It's further along with dedicated applications than jKool, but is also targeted more specifically at price optimization for commerce, whereas jKool is more generic.

DataTorrent would probably be on some buyers' shortlists, again, depending on precisely what they are trying to achieve. DataTorrent offers the analysis of stream data, which is subsequently stored in Hadoop. It offers a cloud version that runs on Amazon Web Services or Google.

GroveStreams also offers the analysis of time series data in the cloud, and like jKool, it has only just come out of stealth mode – it has just one employee, its founder. It uses the Google Feed API to ingest stream data. It's built to use Hadoop as the storage mechanism, like DataTorrent.

Another potential competitor might be TempoIQ – formerly known as TempoDB – while OpenTSDB is an open source time-series database that also sits on the open source Hadoop platform. It offers a simple user interface that can help get you started with basic line graph visualizations, but it doesn't claim to have real-time analytics as rich as jKool's.

In the financial services space, we would also expect Kx Systems' kdb+ to be among the considered alternatives, and we see Guavus helping companies analyze large volumes of data in real time in the telecom space. If a company was to be looking for stream data analytics than run on-premises rather than in the cloud, other alternatives are on offer from FeedZai, IBM, Software AG, SQLstream and TIBCO.

SWOT Analysis

Strengths

The SaaS model is able to scale as analytic demands grow, and it's possible to run the analytics on-premises if that's a customer's preference. Strong focus on ease of use and simplicity.

Weaknesses

The company doesn't support SQL (although it claims its jKQL has its own advantages) and it can't claim to be truly real time due to the inherent latency of the Internet as it affects its as-a-service offering. It's also a startup that has only just been spun out of Nastel, with no reference customers yet.

Opportunities

We see more and more interest in the analysis of streaming data, as companies look to get insight into fast-moving data, faster. These types of technology should lend themselves well to what some are now calling the Internet of Things.

Threats

There are far larger competitors with much more mature stream processing offerings, that in addition to visualizations, offer alerts and the invocation of other business processes. The company needs to secure a round of funding if it is to become truly independent from Nastel.

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